

CLAIMS:

1. Method for configuring a cross-connection matrix within switching means based on status information provided by port controllers of input/output means,
 - where said port controllers provide status information of their virtual output queues within status words to said switching means,
 - 5 – said switching means store said status information within status information fields of a status matrix, and
 - an arbiter within said switching means configures said cross-connection matrix based on said status information stored within said status information fields.
- 10 2. Method according to claim 1, characterised in that said status word comprises communication information, and that said arbiter configures said cross-connection matrix based on said communication information.
- 15 3. Method according to claim 1, characterised in that said status word comprises weight information, and that said arbiter configures said cross-connection matrix based on said weight information.
4. Method according to claim 1, characterised in that said status word
20 comprises type information, and that said arbiter changes said status information within said status information fields based on said type information and the arbitration result.
5. Method according to claim 1, characterised in that said arbiter decrements weight information of said status information within said status information
25 fields in case of a successful arbitration.

6. Method according to claim 1, characterised in that said arbiter increments weight information of said status information within said status information fields in case of a non-successful arbitration.
- 5 7. Method according to claim 1, characterised in that said arbiter resets weight information of said status information within said status information fields in case of a successful arbitration.
8. Packet switch comprising
- 10 – at least one input/output means with at least one port controller,
– at least one switching means with at least one arbiter, and at least one cross-connection means,
– said port controller comprising at least one virtual output queue, queuing cells for communication with other port controllers via said switching means,
- 15 – said arbiter comprising configuration means for configuring said switching of said cross-connection means, and
– where said cross-connection means switch incoming cells from one input/output means to one other input/output means,
characterised in that
- 20 – said arbiter comprises a status matrix with status information fields for each input/output combination between said input/output means,
– said status information fields carry status information of said virtual output queues provided by the port controllers determining the status of said virtual output queues,
- 25 – said configuration means configure said cross-connection matrix based on said status information within said status information fields.
9. Use of a method according to claim 1 or a packet switch according to claim 8 in packet switched networks, in local area networks, in wide area networks, and
- 30 in mobile communication networks.